



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,835	06/24/2003	Yun-Ting Lin	AE 030212	9319
23662	7590	04/06/2005	EXAMINER	
ROBERT M. MCDERMOTT, ESQ. 1824 FEDERAL FARM ROAD MONTROSS, VA 22520			GOINS, DAVETTA WOODS	
			ART UNIT	PAPER NUMBER
			2632	

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/602,835

Applicant(s)

LIN, YUN-TING

Examiner

Davetta W. Goins

Art Unit

2632

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-13, 15-17, 19, 21 and 23-28 is/are rejected.
7) ☒ Claim(s) 14, 18, 20 and 22 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 6, 7 and 17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claimed “trajectory parameters” and claimed “latency parameter that corresponds to a delay associated with processing the information” isn’t found and described within the specification.

Allowable Subject Matter

3. Claims 14, 18, 20 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this

Art Unit: 2632

subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1 and 3 are rejected under 35 U.S.C. 102(e) as being anticipated by Kikinis (US Pat. 6,778,171 B1).

In reference to claims 1, 3, Kikinis discloses a) the claimed video surveillance system that identifies a visual object based on image information provided by one or more cameras, which is met by camera set-ups 259 through n (col. 6, lines 52-60), b) the claimed RF surveillance system that identifies an RF-object based on reception information provided by a plurality of receivers, which is met by the each player and or football including a tracking device 201, 202, 203 that transmit the location of each object to a receiver radio tower 240 (col. 7, lines 7, lines 12-23), and c) the claimed object linker, operably coupled to the video surveillance system that is configured to link the visual-object to the signals from the object, which is met by the radio tower 240 and a computer 242 are connected together by a link 241a, which links the detected objects through the detection of visual images from the cameras as well as the location determined by the transmitter devices 201-203 located on the objects on the field (col. 7, lines 12-67; col. 8, lines 1-39; Figure 3).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2632

7. Claims 2, 4, 5-10, 12, 13, 15-17, 19, 21 and 23-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikinis.

In reference to claims 2, 4, 5-10, Kikinis discloses the claimed video surveillance system configured to determine a first location coordinate corresponding to the visual object, and the RF surveillance system configured to determine a second location corresponding to the RF-object, which is met by the radio tower 240 and computer 242 determine the coordinates of each object with accuracy by collected information from the cameras and transmitted devices attached to the objects ((col. 5, lines 24-67; col. 6, lines 1-67; col. 7, lines 1-42). Although Kikinis does not specifically disclose the claimed calibration module, he does disclose that each object continuously re-evaluates its position, either by receiving GOS signals and re-transmitting those signal coordinates with an ID or by using the four corner stations 221-214 and radio telemetry such that the x' , y' and z' coordinates of the objects can be determined (col. 7, lines 19-48). Since Kikinis discloses that there is a continuous re-evaluation of the position of each monitored object, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a calibration module that ensures that the coordinates are adjusted on a continuous bases to provide real-time location of the monitored objects.

In reference to claims 11-13, 15-16, 19, 21, 25, 27, 28, Kikinis discloses a) the method of attaching a tag to a visually identifiable object, which is met each player and or football including a tracking device 201, 202, 203 that transmit the location of each object to a receiver radio tower 240 (col. 7, lines 7, lines 12-23), b) the claimed method of determining a first

Art Unit: 2632

location coordinate of the object based on an appearance of the object in a scene by a video camera and determining a second location coordinate of the object based on reception from a plurality of receivers and the claimed method of determining one or more adjustment parameters that facilitates a reduction in a difference between the first and second location coordinates of the object, which is met by camera set-ups 259-n used to follow the location of each object to generate 3D images to determine the x, y, z coordinates representing the players (col. 6, lines 52-60; col. 7, lines 38-58). Although Kikinis does not specifically disclose the claimed method of determining one or more adjustment parameters that facilitate a reduction in a difference between the first and second location coordinates of the object, he does disclose that each object continuously re-evaluates its position, either by receiving GOS signals and re-transmitting those signal coordinates with an ID or by using the four corner stations 221-214 and radio telemetry such that the x', y' and z' coordinates of the objects can be determined (col. 7, lines 19-48). Since Kikinis discloses that there is a continuous re-evaluation of the position of each monitored object, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a calibration module that ensures that the coordinates are adjusted on a continuous basis to provide real-time location of the monitored objects.

In reference to claims 23, 26, Kikinis discloses the claimed method of at least one of the parameters is dependent upon a speed of motion of the RF transmitter, which is met by overlaying the two objects, an image can be obtained such that the tracking element 201 traces player 101 accurately at any given time, even through scene changes and camera motion and so forth, because the virtual world will reflect all the positions of actual objects in the real world

Art Unit: 2632

through the transmission of the radio locators including the camera, view direction, zoom factor, and other factors (col. 8, lines 23-45).

8. Applicant's arguments with respect to claims 1-28 have been considered but are moot in view of the new ground(s) of rejection.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Davetta W. Goins whose telephone number is 571-272-2957. The examiner can normally be reached on Mon-Fri with every other Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu can be reached on 571-272-2964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Davetta W. Goins
Primary Examiner
Art Unit 2632



D.W.G.
April 1, 2005